**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
REGION 5
77 W. JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604-3590

Reply to the Attention Of: SR-6J

December 7, 2009

**Via E-mail and Certified Mail**

Richard Gay
Weyerhaeuser Company
810 Whittington Ave.
Hot Springs, AR 71901

RE: Review of Remedial Design Addendum
12th Street Landfill, Kalamazoo River Superfund Site Operable Unit #04
Plainwell, Michigan

Dear Mr. Gay:

The United States Environmental Protection Agency (EPA) has received your addendum to the Remedial Design (RD) for *12th Street Landfill, Kalamazoo River Superfund Site Operable Unit #04, Plainwell, Michigan* dated October 19, 2009. After reviewing the design addendum, EPA disapproves the submittal and requires the revisions identified below. The next design submittal should be a complete Remedial Design document, as opposed to your previously submitted addendums to the Remedial Design.

Pursant to paragraphs 52 and 53 of the Consent Decree for the Design and Implementation of Certain Response Actions at Operable Unit #4 and the Plainwell Inc. Mill Property of the Allied paper, Inc/ Portage Creek/Kalamazoo River Superfund Site, Civil Action No. 1:05CV0003 (2005) (Consent Decree), your next submittal constitutes the Final Design and will be due on January 7, 2010. To the extent you submit a RD on January 7 that still contains material defects; EPA may demand stipulated penalties for its failure to submit a Final Remedial Design in accordance with the Consent Decree.

General Comments

1. There are many grammar and formatting errors in the document.
2. The drawings, specifically the sections and details, are incorrectly referenced in a majority of the document and in the drawings themselves. The references should be corrected in the final document.
3. The Design Report is intended to incorporate multiple appendices and specifications from the RMT pre-final Design Report by reference. Additional review of these appendices and specifications should be performed to see if modifications need to be made to eliminate inconsistencies (for example, Appendix J references 20 passive gas vents; the current Design

Report and Drawings show 11) or additions need to be made to reflect the proposed design (geotechnical construction requirements in Appendix B should be added to the CQA Plan).

4. The cross section drawings should include a legend to identify waste, fill, native soils, and cover material, some of which are not labeled on the drawings.

Specific Comments

5. Table of Contents: The List of Drawings is incorrect; there are three sheets of cross-sections.
6. Section 6.2.2 - 1st paragraph; include all of the requirements for the placement of paper residuals from the technical memo in Appendix B here or reference the tech memo in this section as the source of construction recommendations.
7. Section 6.2.5 - Last sentence of the last paragraph of the "Extent of Planned Excavation" section; the reference to 'mixed with mulch materials' is not consistent with the technical memo in Appendix B and should be removed.
8. Section 6.3.1 – The drawing referenced in this plan, C-05, is the Subgrade Contour Plan but the elevations reference drawing C-07, the Final Grading Plan; which is the correct reference?
9. Section 6.3.1 - What will happen with excavated materials if more than 2,000 cy are excavated above plan due to verification sample results?
10. Section 6.3.2 – The text references Figures A1 through A16; these sections reference a 3H:1V slope that will not be constructed in the design. Please modify the text to reference the correct figures.
11. Section 6.3.2 – The text references Table 6 in Appendix B; this table doesn't exist.
12. Section 6.3.2 – All of the construction recommendations listed in Section 6.0 of Appendix B should be added to the text of the report.
13. Section 6.4 - The hydraulic conductivity for the gas venting layer is different from as specified in the ROD. While this is considered a design improvement, please discuss this change.
14. Section 6.4 – The erosion control matting discussed in the last paragraph (to elevation 707 on the eastern slope) of this section is not shown on the drawings or details; please show this matting as appropriate in the Drawings (specifically, drawing C-07, but in the details as well). The extent of the erosion control matting in the transition area is also unclear from the drawings.
15. Section 6.6.1 – The gas system design in Appendix A does not match the design presented in this section.
16. Section 6.6.1 – The RMT design report shows 20 passive vents connected by HDPE pipe; discuss why the current design differs from this approach. If this decision has been based on the field program, please discuss the limitations of basing the design on data collected from one well.
17. Section 6.6.1 – Include provisions for the installation of additional vents based on field observations of distress in the liner system during construction.
18. Section 6.6.2 – Discuss the absence of gas probes along the northern side of the property.

19. Section 6.7 – The drawings seem to indicate a bottom width of 5 feet in the ditch; please clarify the width of 14 ft and how larger vehicles could utilize this ditch as an access road.

20. Drawings – The Cross sections, sheets C-07 through C-010 should be labeled (i.e. A-A') to provide the proper orientation of the cross section on site.

Appendices

21. Appendix A: Landfill Gas Analysis – This Technical Memo doesn't reference the design presented in the report and the Drawings.

22. Appendix A: Landfill Gas Analysis – Section B: Discuss the impact of relocating the paper residuals from off-site and on the landfill slopes on landfill gas production.

23. Appendix A: Landfill Gas Analysis – Section H: Discuss the possibility of landfill gas providing over-pressure in locations where the gas cannot 'vent' to the proposed venting system. Consider adding protocols for adding passive vents in locations if/where distress to the liner is observed during construction.

24. Appendix B: Slope Stability: 3H:1V slopes are not proposed in this design; please remove discussion and figures from this Technical Memo.

25. Appendix B: Slope Stability – Section 6.1 – Consider adding the last paragraph in its entirety to the conclusions and recommendations. Section 7.0 does not currently contain this language in sufficient detail to fully summarize the geotechnical recommendations shown here.

26. Appendix B: Slope Stability – Section 6.2 – As identified above, the conclusions and recommendations are not adequately summarized in the Section 7.0. Additionally, consider adding the language recommending design and installation of the system by a specialty contractor to the work plan text.

27. Appendix B: Slope Stability – Section 6.4 – Please define "qualified geotechnical engineer". What will determine if this individual is qualified; years of field experience, professional registration, experience with like material, etc. Consider defining this individual's responsibilities in the Construction Quality Assurance Plan.

28. Appendix E: Specifications. Include the specifications from the previous reports in this section; please consider whether other sections (specifically, 02320 Fill, but there are probably others) need to be revised to incorporate the geotechnical construction recommendations presented in Appendix B and other changes made during the design process.

29. Appendix E: Specifications – 02311. Include the geotechnical recommendations in this section. The requirements of this section (as written) do not reflect the requirements in Appendix B.

30. Appendix E: Specifications – 02374. The table of contents shows this specification as removed, but it is referenced in the design report; please clarify.

31. Appendix G1: Please discuss the impacts of off-site grading activities on the surrounding properties and surface water management of those properties

32. Appendix G2: Drainage Layer Hydraulics - The soil layer permeability (1x10-7 m/s) seems too low; please correct when the specification for this material is prepared and the level of compaction is determined.

33. Annual Soil Loss - The 'R' value presented is incorrect for Allegan County; please reference the State of Michigan Soil Erosion and Sedimentation Control Training Manual to determine the proper coefficients for use in this formula.

Drawings

34. Drawing C-02 - Section 6.1 outlines the installation of a staging area and decontamination area; please show a proposed location for these areas (this location may change, but, please consider whether there is enough room on the property for these site features

35. Drawings C-08 through C-09. The perimeter of the landfill on these sections seem to contradict the design presented in the text and other drawings.

    a. Section B and C – The edge details on the east side of these sections don't seem to reflect the plan views and details; please clarify.
    b. Section F – Does this section reflect the design intent? This section shows soil cover extending well outside of the property line and the geomembrane extending past the limits of the waste excavation; why not terminate this section similar to what is shown in Section H?

If you have any questions about this letter, please contact me at (312) 353-8983.

Sincerely,

Michael Berkoff
Remedial Project Manager

cc: J. Saric EPA
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